From: Arthur D Unger
Sent: Friday, October 17, 2003 6:36 PM
To: Dabbs, Paul
Subject: Volume One of the California Water Plan Update 2003

To: Paul Dabbs pdabbs@water.ca.gov The below is also attached.
From: Arthur Unger

October 14-17, 2003

Re: Volume One of the California Water Plan Update 2003

These comments rehash and add to my comments on chapter 6 draft 1 of Bulletin 160-03 due 2 18 03, which I sent to <B160Editors@water.ca.gov>. These comments are on the September 30, 2003 draft.
I understand that NBR (page 5-49) must consider GAC when estimating O&M costs; but, I would have understood sooner if you used fewer acronyms. If you must use many, please include a glossary.

Page 1-2, paragraph 4, mentions low flow toilets and shower heads; I support such urban conservation. The next paragraph mentions agricultural conservation, which I support.

I now again discuss sub-urban water conservation, which I equate to outdoor water use that does not produce significant amounts of food. Today the Kern County Board of Supervisors approved, on their consent calendar, the conversion of 38 acres that had grown cotton and alfalfa to one acre estates. They saw no need for an environmental document for this project because our Western Rosedale Specific Plan of 1994 stated that although such projects would cause air pollution and loss of farmland, these projects were socially and economically desirable. Is there any way you can convince the Kern County Board of Supervisors that California has a water shortage? Will those who establish these one acre estates conserve water? They certainly will be affluent enough not be influenced by the price of water. Including xeriscape in Bulletin 160-03 would save water, especially if someone contacted those establishing new homes and estates. One developer in Bakersfield has agreed to put solar panels on the first of his model homes and to advise potential home buyers of the benefits of saving energy. Has anything like this been tried for water?

The Planning Director of Bakersfield, Stan Grady, presented the concept of "walkable communities" to the Bakersfield City Council; cluster housing is often prominent in walkable communities and often results in substituting a clay tennis court for lawn. Cluster housing decreases the

amount of water used per suburban resident. You say this on page 3-49, last sentence under "urban lands management".

Bakersfield has just used about one million Proposition 50 dollars to landscape Panorama Park at Alta Vista street. Fertilizer covers the ground, automatic sprinklers have been placed, exotic trees are planted, grass is to follow. The sprinklers have made puddles and hoses have eroded some of the fertilizer away.

The Bakersfield Californian is delivered to driveways during the summer in a plastic bag, to protect it from the sprinklers. On my hilly block, water often flows in the gutter.

This year, San Joaquin Valley residents have become more aware of their air quality and Senator Florez has written legislation that has become law with only moderate watering down. Perhaps if the California Water Report was less reassuring, and stressed the damage to fisheries and the price to farmers, folks would do more to conserve water. Is that what you mean by education on page 2-12? Do you try to achieve scenario 2 of page 3-37 paragraph two?

I note that reducing urban and suburban water consumption would not do much for California consumption because agriculture uses 80% of all the water that runs off. However, if urbanites do their share, farmers are more likely to cooperate. Are the farmers correct when they say suburban sprawl increases the consumption of water? Media reports that if takes one acre-foot of water to sustain a family of five; do they mean five people living on a landscaped acre? Most prime farmland on the San Joaquin Valley floor receives at least three acre-feet a year.

CHAPTER TWO

Page 2-2 refers to loss of riparian and wetland habitat. I am told about 90% of such habitat in California has been lost.

Page 2-2, last paragraph, refers to farmers planning for dry years. Do/should farmers plant fewer plants per acre in dry years?

Thanks for listing energy production as a use of water, page 2-17, top. The Pastoria combined cycle natural gas plant in southern Kern County, just east of I-5 was initially planned to use 5,000 acre feet a year to enable a capacity of 500 MW. Half of California's electricity comes from natural gas. How much water could we save if we reduced electricity consumption? My guess is on the order of 20,000 acre feet; not much.

Table 2-1, page 2-23 tells me California precipitation in 2000 was 187.7 x 1000 = 187,700 acre feet but I think it was 1,877,000.

CHAPTER THREE

Page 3-8 seems to say that farm land is being lost to urbanization and that some of that farmland is being replaced by some other land. Does that other land produce as much food, fiber and jobs per unit water as the land it replaces? Where does the other land come from? Was it wildlife or endangered species habitat? Was it used for passive recreation?

Page 3-9 refers to "production value"; what is that? Is the production value of a bale of cotton equal to the price the farmer gets for that bale? Is the price a farmer gets for a bale equal to the price the farmer gets from the market plus the subsidy the farmer gets?

We need more information on page 3-11 re drip and sprinkler irrigation. I hope you ask for comments on sub surface drip from the UC Cotton Research Station in Shafter, CA, from Cal Poly as on page 5-11, from farmers that use sub surface drip and from Netafim Irrigation (559 288-2392 <jphene@netafimusa.com>).

I am pleased with the discussion of climate change. I concur that should enhance public awareness of climate change.

Page 3-49, 5-108. When listing the pros and cons of recharge area protection you should include the amount of energy it takes to retrieve water from the most ideal recharge areas compared to other recharge areas. Other energy quantities that should be in this document are:

Energy to move water long distances, especially from the delta over the Tehachapis

Energy to clean contaminated water.

Bakersfield developed section 36, (Allen Road is the west boundary and the south boundary is just north of the Kern River) knowing it was an ideal recharge area. Could any City give up a chance to increase the tax base in order to conserve water for the entire state? Protection for all excellent aquifers should be required.

CHAPTER FOUR

Page 4-43 of the August 29 draft is better than pages 59 and 60 of the September 30, 2003 draft. The August 29 draft has more information of fish, nitrates, selenium and pesticides impacts.

Page 4-46, paragraph two should point out that reservoirs evaporate

water. I remember that Lake Isabella evaporates 80,000 acre feet per year. I can not contact the US Army COE to confirm this, but you should have figures for all California reservoirs. Evaporative loss is an argument against surface storage. *I have since placed 4 calls to the COE answer phone at* Lake Isabella *and still hope for an answer.*

Would the Colorado River have more water for California if salt cedar, aka tamarisk, could be eliminated from the Colorado's water shed, as contemplated in planned federal legislation?

CHAPTER FIVE
Issues in desalination (5-42) should mention the impact to marine invertebrates and fish that taking in water, and giving off warm salty water would have.

Recreation on reservoirs (page 5-51) should quantify and tell the effect of oil or gasoline that may enter the water from boat motors.
We need a paragraph on animal manure in rivers. My information all comes from the Kern River. I think a state a state agency has investigated the manure piles where Manor Drive in Bakersfield crosses the Kern. A bridal path crosses the River just west of Manor. Cows and horses graze on the 1+ acre estates along the Kern west of Hart Park.

We need a paragraph on human manure in rivers. I hear third hand that feces can be seen on the lower North Fork of the Kern. Adult sized feces has been encountered several times by Ann Williams (annmdgz@igalaxy.net 661 324 1055) during the regular dirty diaper pick up hours her group held on the Kern in Hart Park. A reliable observer says that urinating in the street is something a poor person in Mexico might do; Spanish is frequently spoken in Hart Park; the relationship of these facts to the feces is not established.

We do not need to mention "blowers" in paragraph three, page 5-57. Blowers make noise, create PM 10, often use gasoline and release Reactive Organic Gases and products of combustion.
Maybe a TV ad of Arrianna H. and Arnold sprinkling their yard and then using a broom or rake would decrease blower use.

Page 5-68 How much of the $75 billion a year California recreation and tourism industry brings in money from non US residents? Does that money significantly reduce America's balance of trade?

I appreciate page 3-16 re "restoring natural floodplain processes" and pages 5-73 to 77. We should re-connect streams to their flood plains. This means keeping permanent development out of low lying areas, such as

near rivers that occasionally flooded even before modern development. Streams should be lined with locally native riparian plants so they can provide wildlife habitat, including for sensitive species like Southwest willow flycatcher, Yellow billed cuckoo and riparian brush rabbit, Sylvilagus bachmani riparius. Parks, ball fields and farms should occupy enough of the rest of the flood plan to render flooding of buildings extremely unlikely. In the wettest years, farmers may have losses due to diverting flood waters onto their land. Such lands may gain in value by storing ground water that will be available to crops in future years, by water pushing salts down below the root zone and by accumulating fertile sediment. The opportunity to make one year's crop may be lost. Even if taxpayers pay the difference between the cost of a lost crop and the value of the gains mentioned above, their cost will be much less than the loss of life and property that currently occurs. Such compensation is much cheaper than building dams and diversions.

Agricultural impacts, page 5-91, should mention that we have no experience with the several thousand cow to 28,000 cow (Borba) dairies now coming into being.

Natural impacts, page 5-91, should mention trihalomethanes.

Page 5-112. Will it take less energy to use reverse osmosis to lower recycled water salts so that the water is good for agricultural irrigation than it takes for sea water?

Page 5-130. CA has 200 reservoirs and how many rivers that are wild from their origin to their mouth? *CA has 1400 dams.*
Page 5 -151. Thanks for numbers relating sprawl to water use.

Page 5 -210 Since early run off due to global warming will occur, it is especially important to preserve intact forests with their spongy floors and meadows. Recommendations should include:

1 Being prepared to put logs of compost and vegetation on burned hillsides. Usually the forest fires go out just before the fall rains, so the logs must be ready in advance.

2 Forest management that minimizes fire such as not cutting big fire resistant trees, not leaving gaps in the forest where the sun can dry the brush that replaces trees and not leaving slash piles.

Page 5 -216. The ability of coastal areas to produce food without irrigation is a reason to preserve them that is not generally heard. Tell it to the Central Coast before we pave the rest of it.

Page 5 -218. I am told much of the Midwest practices conservation tillage.

Thank you for the opportunity to comment,
Arthur Unger